

**REMARKS**

**Claim status**

Claims 1-22 were pending in the case at the time of the current Office Action. Claims 16-22 are currently amended herein, and new claims 23-35 are presented herein. Claims 1-15 are cancelled herein. Claims 16-35 are currently pending in the application.

**Specification rejections**

In the current Office action, the abstract of the disclosure is objected to because it contains the form and legal phraseology often used in patent claims, such as "comprises" and "said".

Applicant has amended the ABSTRACT herein to comply with the Examiner's requirement. Applicant respectfully requests that the specification amendments be entered and that the objection be withdrawn.

**Claim objections**

In the current Office action, claims 8, 10, and 16-22 are objected to because of the following informalities:

Claim 8, line 2, "said dynamic volatility interval" does not have proper antecedent basis.

Claim 16, line 5, "said central processing unit" does not have proper antecedent.

Applicants have cancelled claim 8 and have amended claim 16 herein to overcome the Examiner's objections.

Applicants respectfully request that the claim amendments be entered and that the objections be withdrawn.

**Section 112 rejections**

In the current Office action, claims 8, 10, and 13-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 8, line 30, the word "syamic volatility internal" is not in the specification and its meaning is unclear. In claim 13, line 14, the words, "in different of said volatility units" is unclear.

Claims 8 and 13 have been cancelled herein.

Applicant respectfully requests that the claim amendments be entered and that the rejections be withdrawn.

**Section 102 rejections**

In the current Office action, claims 1, 3, 6, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Steidlmaier et al. (U.S. Patent 5,454,104A).

Applicant respectfully traverses the foregoing rejections in view of the above pending claims and for reasons set forth hereafter.

Independent claim 16 recites a method for receiving, processing and communicating a collection of price data for analysis and making of a trading decision by an investor, said method comprising the steps of:

receiving a collection of price data from a data source;

processing said collection of price data to generate volatility-adjusted price data; and

generating a plurality of price charts derived from said processing step, wherein at least one of said plurality of price charts includes a volatility-adjusted relative price chart representing a plurality of volatility-adjusted relative price data plotted within dynamic volatility intervals.

It is respectfully submitted that Steidlmaier et al. (U.S. Pat. No. 5,454,104A), hereinafter Steidlmaier, does not teach or suggest the invention of independent claim 16. In particular, Steidlmaier does not teach or suggest in any way the method as now defined. As claimed, the present invention provides for processing of price information to generate volatility-adjusted relative price data, and generating at least one price chart including a volatility-adjusted relative price chart representing a plurality of volatility-adjusted relative price data plotted within volatility intervals. Steidlmaier is completely silent with respect to any mention of dynamic volatility intervals, volatility-adjusted relative price data or the use of such volatility-adjusted relative price data to construct a price chart representing a plurality of volatility-adjusted relative priced data plotted within dynamic volatility intervals as defined by the present application.

Volatility-adjusted relative price data according to the present invention is price data that has been adjusted for volatility changes in a market and is plotted relative to a floating axis, rather than absolute zero, thereby making it a relative price measure. Pages 11 and 12 and Figs. 7 and 8 of the current application describe one way, in accordance with an embodiment of the

present invention, of how volatility-adjusted relative price data is calculated and how a volatility-adjusted relative price chart is formed, which is adjusted for price volatility.

Steidlmaier does not describe any steps or formulas that relate to such features or are even remotely similar to those steps and formulas used to create the volatility-adjusted relative price data in the present invention. Furthermore, Steidlmaier does not discuss relative price data of any kind and does not address the idea of adjusting price data with respect to changing market volatility as does the claimed invention of claim 16.

Instead, Steidlmaier is concerned with the hardware and software needed to generate a Market Profile. A Market Profile as described by Steidlmaier, is a graphic displaying price and volume on the vertical axis, with cleared price activity on the horizontal axis broken down by trading period. Market Profile is a subset of the Liquidity Data Bank (LDB) report. LDB reports are released only by the Chicago Board of Trade (CBOT). The horizontal activity is identified by letters for each time period (for half-hour periods the letters are A=08:00 to 08:30, B=08:30 to 09:00 and so on). See Figs. 4, 6-A, 6-C, 6-E, 6-G, 7-A, 7-C, 7-D, 7-F, 8-A, 9-B, 9-D, 10-A, 10-C, 10-D, and 10-F of Steidlmaier. These letters are called TPOs (Time-Price Opportunity). Market Profiles are available from exchanges that report volume at price (Liquidity Data Bank), for example, the CBOT. Steidlmaier is concerned with absolute price data (see the vertical axes of the above-mentioned figures of Steidlmaier) in the form of Market Profiles, and not relative price data plotted with respect to a floating axis. In addition, Steidlmaier is not concerned with any type of volatility-adjusted price data as is the claimed invention of claim 16. Steidlmaier does not create or provide information relative to volatility intervals or any kind as does the claimed invention of claim 16.

The volatility intervals of the claimed invention of claim 16 can expand and contract depending on the volatility of the price data in order to compensate for price volatility. Steidlmaier does not address compensating for price volatility in any way when viewing price data, let alone by determining volatility-adjusted relative price data plotted within dynamic volatility intervals as does the claimed invention of claim 16. Instead, Steidlmaier describes identifying those periods in a data stream when the market is in “minus development”, i.e., when

transaction prices dislocate from the control price of a preceding development, thereby becoming disconnected in price and range of price from the immediately past transaction activity.

The Market Profile of Steidlmayer cannot answer the question "is the market overbought". A Market Profile also cannot quantify the degree in which a market is overbought or oversold. The present invention in accordance with claim 16, provides definitive valuation data about a market whereby price may be quantified either at fair value, moderately overbought, significantly overbought, moderately oversold, or significantly oversold. The Market Profile of the prior art of Steidlmayer plots absolute prices with respect to zero. The volatility-adjusted relative price data of the present invention plots relative price with respect to a floating axis.

Again, Steidlmayer does not teach or suggest adjusting price data for volatility and does not discuss relative price data of any kind, as described above with respect to claim 16. Steidlmayer does not teach or suggest creating and displaying a price chart of volatility-adjusted relative price data as claimed in the present invention.

Further in explaining the invention, in Steidlmayer, it is stated that Market Profile disassociates the results displayed from fixed units of time, which are the traditional units that the x-axis is defined with. Unlike Market Profile of Steidlmayer, the present invention constructs volatility-adjusted relative price charts with the x-axis defined in terms of fixed units of time. This fact alone distinguishes the present invention and provides substantially different information for analysis and evaluation.

Therefore, in view of at least the foregoing, it is respectfully submitted that independent claim 16 is not anticipated nor made obvious by Steidlmayer, and it is respectfully submitted that independent claim 16 defines allowable subject matter. Also, those claims, which depend either directly or indirectly from claim 16, also define allowable subject matter as well. Applicant respectfully requests that the rejection of claim 16 under 35 U.S.C. 102(b) be withdrawn.

### **Section 103 rejections**

In the current Office action, claims 2, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 20, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steidlmayer and Black et al. (U.S. Pat. 6,012,042A), hereinafter, Black.

Applicant respectfully traverses the foregoing rejections in view of the above-amended claims and for reasons set forth hereafter.

The deficiencies of Steidlmayer as described above with reference to independent claim 16 are not accounted for by the further art of Black. Black does not teach or suggest adjusting price data for volatility and does not discuss relative price data of any kind as does the claimed invention of independent claim 16. Instead, Black is concerned with using both technical data and fundamental data about a security to analyze the security. In technical analysis, security price movements are predicted by examining past price movements. In fundamental analysis, corporate data is used to help qualify and quantify an investor's expectations for a company's future. Black presents an invention that presents both technical analysis and fundamental analysis on a single screen and has nothing to do with the value charts created in the present invention. Neither Black nor Steidlmayer teaches or suggests creating and displaying a price chart of volatility-adjusted relative price data as in the present invention.

Therefore, in view of at least the foregoing, it is respectfully submitted that none of Steidlmayer, Black, or the combination thereof teach or suggest the claimed invention of independent claim 16, and it is respectfully submitted that independent claim 16 defines allowable subject matter. Also, since claims 17, 18, 20, 21, and 22 depend either directly or indirectly from claim 16, it is respectfully submitted that these claims define allowable subject matter as well. Applicants respectfully request that the rejection under 35 U.S.C. 103(a) be removed.

In the current Office action, claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steidlmayer and Black as applied to claim 18 above , and further in view of Lange (U.S. Pat. 6,321,212B1), hereinafter, Lange.

Applicant respectfully traverses the foregoing rejections in view of the above pending claims and for reasons set forth hereafter.

Lange also does not teach or suggest adjusting price data for volatility and does not discuss relative price data of the kind in the claimed invention of independent claim 16. Instead, Lange is directed to systems and methods of trading, and financial products, having a goal or reducing transaction costs for market participants who hedge against or otherwise make

investments in contingent claims relating to events of economic significance. None of Lange, Black, or Steidlmayer teaches or suggests creating and displaying a value chart (i.e., a price chart of volatility-adjusted relative price data).

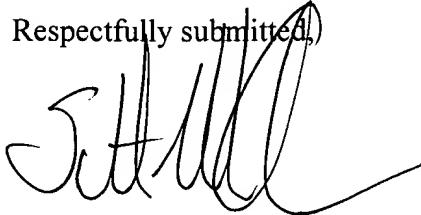
Therefore, in view of at least the foregoing, it is respectfully submitted that none of Steidlmayer, Black, Lange, or any combination thereof teach or suggest the claimed inventions of independent claim 16, and it is respectfully submitted that independent claim 16 defines allowable subject matter. Also, claim 19 defines subject matter, which again the prior art has no significant relevance to. The price action profile as defined again provides information, which is completely distinct, relating to the frequency that value chart price data trades within each dynamic volatility interval. Price action profile is a tool that is a byproduct of value charts and was created to analyze and plot historical value chart price behaviour. The prior art does not relate to this feature. Also as this claim depends either directly or indirectly from claim 16, it is respectfully submitted that claim 19 defines allowable subject matter as well. Applicants respectfully request that the rejection of claim 19 under 35 U.S.C. 103(a) be removed.

In the current Office action, claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steidlmayer and Black as applied to claim 2, and in view of Minton (U.S. Pat. 6,014,643A), hereinafter, Minton. Claims 4 and 5 have been cancelled rendering this rejection moot.

New claims 23-35 also define aspects of the invention which are not taught or made obvious by the prior art, and define additional distinguishable subject matter. These claims should also be in allowable condition.

Accordingly, the applicant respectfully requests reconsideration of the rejections and objections based on at least the foregoing. After such reconsideration, it is urged that allowance of all pending claims will be in order.

Respectfully submitted,



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